

Title (en)
ELECTRONICALLY CONTROLLED LOCKING DIFFERENTIAL HAVING LOGIC-CONTROL WIRE HARNESS

Title (de)
ELEKTRONISCH GESTEUERTES SPERRDIFFERENZIAL MIT EINEM LOGIC-CONTROL KABELBAUM

Title (fr)
DIFFERENTIEL DE BLOCAGE A PILOTAGE ELECTRONIQUE COMPRENANT UN FAISCEAU DE CABLAGE DE LOGIQUE DE COMMANDE

Publication
EP 2432657 B1 20140813 (EN)

Application
EP 10724579 A 20100520

Priority
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• US 46889409 A 20090520

Abstract (en)
[origin: US2010298082A1] An electronically controlled locking differential includes an electromagnetic coil and a wire harness adapted to logically control operation of the differential and having a circuit. The circuit has a latching switch that is electrically connected to a first source of power and adapted to provide latching power of the differential. A double-pole, double-throw control relay is electrically connected to the latching switch and includes a first switch, a second switch, and a coil. The second switch is adapted to "jump" the latching switch. The circuit is disabled when power to the harness is turned off and in "standby" mode when power to the harness is turned on. Upon the latching switch being activated, current flows from a starting point of the circuit through the circuit to activate the relay, the first switch closes to energize the differential, the second switch closes such that the current "jumps" the latching switch, and the differential is actuated.

IPC 8 full level
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CPC (source: EP KR US)
B60K 23/04 (2013.01 - EP KR US); **F16H 48/24** (2013.01 - KR); **F16H 48/30** (2013.01 - EP KR US); **F16H 48/24** (2013.01 - EP US); **F16H 2048/204** (2013.01 - EP KR US); **F16H 2048/346** (2013.01 - EP KR US)

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US 2010298082 A1 20101125; US 8100805 B2 20120124; AU 2010250902 A1 20111027; AU 2010250902 B2 20130711; CA 2759455 A1 20101125; CN 101893079 A 20101124; CN 101893079 B 20141112; CN 201836333 U 20110518; EP 2432657 A1 20120328; EP 2432657 B1 20140813; ES 2505267 T3 20141009; JP 2012527372 A 20121108; JP 5637465 B2 20141210; KR 101704080 B1 20170222; KR 20120016127 A 20120222; MX 2011012429 A 20120221; PL 2432657 T3 20150227; RU 2011151833 A 20130627; RU 2547668 C2 20150410; WO 2010133954 A1 20101125

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